

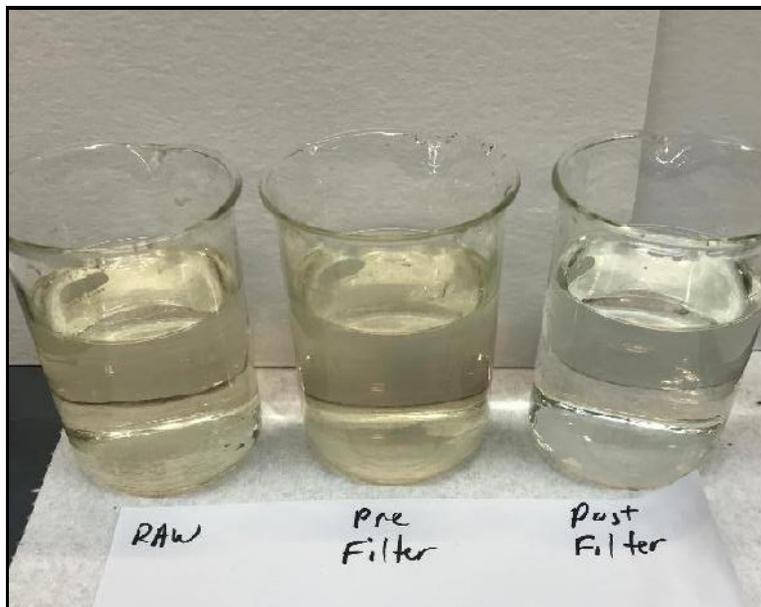


Case Study

Aries Improves Paper Mill Raw Water Quality To Increase Sheet Brightness

A paper mill found that it needed better raw water quality to produce a new brighter white grade. The mill's existing system treated river water with coarse screens and bleach addition. The maximum brightness that could be produced with this process was approximately 80.

Aries Chemical was asked to provide a solution to improve the mill's raw water treatment process. Aries surveyed the paper mill's existing raw water treatment system and sent raw water samples to its development laboratory. At its laboratory Aries performed a treatability study, which simulates a full-scale treatment process. Aries produced several different treated water samples that were used to make hand sheets to measure brightness. Aries laboratory treated water produced hand sheets with a 90 plus brightness, which met the finished sheet brightness specification.



Beakers show the raw water, treated water prior to filter and filtered water



Based upon Aries laboratory work the paper mill upgraded its raw water treatment process to add better chemical mixing for bleach and a coagulant, an upgraded chemical feed system and new multimedia filters. The new treatment process enabled the mill to meet the brightness specification for this new paper grade. It also broadened the mill's product portfolio to include other high brightness / whiteness grades.

Water Source versus Sheet Brightness

Water source	Sheet Brightness
Original Raw Water Treatment Process	Approximately 80
Upgraded Raw Water Treatment Process	Greater than 90

For further product and technical assistance, contact your Aries Chemical Representative, aries@arieschem.com or call Aries @ 315 346 – 1489. Go to Aries Chemical's website to view our full capabilities: www.arieschem.com.

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